

ABSTRACT

The present invention relates to thermally stable, high surface area alumina supports and a method of preparing such supports with at least one modifying agent. The method includes adding an aluminum modifying agent to the alumina prior to calcining. The inventive support has thermal stability at temperatures above 800°C. A more specific embodiment of the invention is a catalyst having a high surface area, thermally stable alumina support with at least one group VIII metal or rhenium and an optional promoter loaded onto the support. The present invention further relates to gas-to-liquids conversion processes, more specifically for producing C₅₊ hydrocarbons.